

Application No. 10/691,901
Reply to Office Action dated March 6, 2007

Amendments to the Drawings:

The attached sheets of drawings include changes to Figures 2 and 3. These sheets, which include Figs. 2 and 3, replace the original sheets including Figs. 2 and 3.

Attachment: Replacement Sheets

REMARKS

Claims 1-14, 16-35, and 37-54 are presented for further examination. Claims 1, 3, 13, 14, 16, 27, 29, 30, 35, and 47 have been amended. Claims 15 and 36 have been cancelled.

In the Office Action mailed March 6, 2007, the Examiner objected to the drawings and to claims 4, 16, 30, 37, and 49 because the feature of “at least two nozzles” was not shown. Claims 1-19, 22, 25-40, 43, 46-50, and 53-54 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,624,393 (“Diamond”). Claims 20-21, 23-24, 41-42, 44-45, and 51-52 were rejected under 35 U.S.C. § 103(a) as obvious over Diamond in view of U.S. Patent No. 5,429,607 (“McPhee”).

Applicant respectfully disagrees with the bases for the rejections and requests reconsideration and further examination of the claims.

Drawing Objections

Figure 3, as amended in the previous communication with the Examiner, includes two nozzles, 68 and 69. The applicant disagrees with the Examiner’s assertion that the nozzle portion comprising at least two nozzles is not supported in the specification as filed. Applicant respectfully directs the Examiner’s attention to page 4 lines 1-3 and page 8 lines 1-4 of the specification wherein a “split nozzle” is described.

Figures 2 and 3 have been amended to include missing reference number 24 on Figure 2 and reference number 50 on Figure 3. No new matter has been added.

Approval and entry of the substitute Figures 2 and 3 is respectfully requested.

Claim Objections

The Examiner objected to claims 4, 16, 30, 37, and 49 asserting the claimed subject matter was not shown in the drawings. Each of the listed claims refers to a nozzle portion comprising at least two nozzles. Amended Figure 3 shows two nozzles, 68 and 69.

Applicant respectfully requests withdrawal of the objection.

Claim Rejections

Diamond describes an irrigation system for surgical instruments that utilizes a passive fluid source to gravity-feed fluid into a tube. The passive fluid source attaches to a rigid tube portion with a length of flexible I.V. tubing (Diamond column 2 lines 54-55). The rigid tube, attached to a surgical tool, terminates in a jet nozzle that is angled downward (Diamond column 2 lines 39 – 42).

Turning to the claims, claim 1 is directed to a surgical irrigation device for use with a surgical tool that includes a stretchable sleeve configured for attachment to the tool, a conduit having a distal tip that is adapted for repeated bending to retain an angle of orientation without kinking or breaking and a proximal end, the conduit mounted on the sleeve, and a flow control mounted on the sleeve and associated with the conduit for controlling fluid flow through the conduit. Support for the amendment to claim 1 is found in the specification at page 7 lines 21-22.

Applicant disagrees with the Examiner's assertion that the cited reference describes the distal tip as "flexible." Diamond discloses a narrow tubing of two connected pieces, one rigid and one flexible, attached to a separate angled conical nozzle. Diamond only describes the I.V. tubing, which connects the passive fluid source to the rigid portion of tubing, as flexible (Diamond column 2, lines 54-55). Although flexible can be bendable, Diamond does not disclose a malleable distal tip with the ability to be repeatedly bent to retain a manually selected angle of orientation.

Nowhere does Diamond teach or suggest a malleable distal tip to enable a user to position the tip to direct fluid flow where the tip retains the selected position. Diamond discloses a predetermined angled nozzle and nowhere teaches selection of the angle of the nozzle. Although Diamond discloses an angled jet nozzle rotatable around a tube, Diamond does not teach or suggest manual selection of the angle of the nozzle.

Nowhere does Diamond teach or suggest these features as recited in claim 1. Applicant respectfully submits that claim 1 is clearly not anticipated by Diamond.

Claims 2-8, which all depend ultimately from claim 1, are allowable for the features recited therein as well as for the reasons why claim 1 is allowable.

Claim 3 recites a conduit comprising a tube formed of flexible material and the distal tip comprising a malleable wire attached to a flexible portion of the tube to retain the selected position and direct fluid flow from the conduit. Claim 4, which depends from claim 3, recites a nozzle portion comprising at least two nozzles, each of the at least two nozzles configured to be individually adjustable to a desired position and to retain the desired position. Nowhere does Diamond teach or suggest a malleable repositionable nozzle portion to accommodate differing needs and applications as described in the present specification (page 7, lines 24-27).

In view of the foregoing, applicant respectfully submits that claim 1 and dependent claims 2-8 are clearly allowable over Diamond.

Claim 13 is directed to a surgical irrigation system for use with a surgical tool that comprises a sleeve sized and shaped to be slidably received onto the surgical tool, a conduit mounted on the sleeve and having a malleable dispensing tip that is adapted to be bent for repeated repositioning of the dispensing tip, a flow control mounted on the sleeve and associated with the conduit, and a reservoir coupled to the conduit. Claim 14, which depends from claim 13, recites an embodiment of a dispensing tip comprising a malleable wire attached to flexible portion of the conduit to retain the selected position and direct fluid flow from the conduit. Support for this amendment is found in the specification at page 4, lines 17-18 and page 8, lines 6-8. As described in the present specification at page 8, lines 6-8, the malleable portion allows a surgeon to position the nozzle to avoid interference with the saw blade, the bone, or the tissue. Nowhere does Diamond suggest these features. Applicant respectfully submits that claim 13 and all dependent claims, *i.e.* 14, and 16-26 are allowable.

Independent claim 27 is directed to a surgical instrument that includes a surgical tool and a surgical irrigation device attached to the tool that comprises a sleeve attachable to the tool, a conduit mounted on the sleeve and having a malleable nozzle portion to enable repeated selective positioning of the nozzle portion without kinking or breaking, and a flow control mounted on the sleeve and associated with the conduit. Claim 29, which depends from claim 27 recites a conduit comprising a tube formed of flexible material, and the tube further comprising a distal tip having a malleable wire attached to a flexible portion of the tube to retain the selected

position and direct fluid flow from the conduit. As discussed above, claim 27 and all claims depending therefrom, *i.e.* 28-33, are allowable for the reasons claims 1 and 13, and their respective dependent claims are allowable.

For the foregoing reasons, independent claim 34 and all dependent claims therefrom, *i.e.* 35 and 37-47 are allowable.

Claim 47 recites a single-use surgical irrigation system for use with a surgical saw having a cylindrical body to provide fluid for irrigation and cooling, the system having a sleeve formed of compliant material and sized to be slidably received over the cylindrical body on the tool and to retain its position on the cylindrical body, a fluid reservoir comprising a compressible container and a device for compressing the container, a tube mounted on the sleeve, the tube having a first end configured for dispensing fluid and a second end connectible to the fluid reservoir, the first end comprising a nozzle portion that is malleable to enable repeated selective positioning by bending of the nozzle portion and retaining of the selected position for directing fluid therefrom at a desired location, and a fluid control mechanism mounted on the sleeve and associated with the tube for controlling the volume of fluid passing through the tube from the reservoir to the nozzle portion, the fluid control mechanism positioned on the tool to enable operation of the fluid control mechanism by one or more fingers of a user while holding the tool. Nowhere does Diamond teach or suggest a malleable distal tip for repeated selective positioning of a nozzle portion. Applicant respectfully submits that claim 47 and all dependent claims therefrom, *i.e.* 48-57 are allowable.

In view of the foregoing, applicant submits all of the claims in this application are now in condition for allowance. In the event the Examiner finds minor informalities that can be resolved by telephone conference, the Examiner is urged to contact applicant's undersigned representative by telephone at (206) 622-4900 in order to expeditiously resolve prosecution of this application. Consequently, early and favorable action allowing these claims and passing this case to issuance is respectfully solicited.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable.
Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
SEED Intellectual Property Law Group PLLC

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ERT:HS/jk

Enclosure:
2 Sheets of Drawings (Figures 2 and 3)
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